2-6 continued

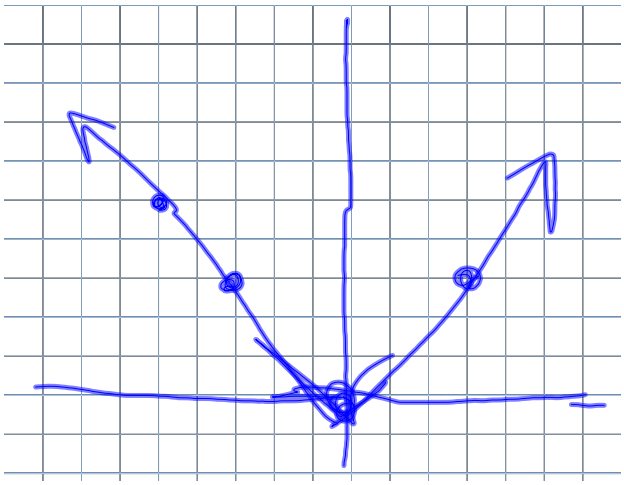
Absolute Value Graphs

$$y = a|x - h| + k$$

Calculator

$y = |x|$

x	y
-5	5
-3	3
0	0
3	3



$y = a|x-h|+k$ $V(h,k)$

ex1 $y = |x|$ $V(0,0)$

$h=0$ $k=0$ $a=1$

ex2 $y = |x| - 3$ $V(0,-3)$

$h=0$ $k=-3$

ex3 $y = |x-h|+k$ $y = |x--2|$

$y = |x+2|$

$V(-2,0)$

Summary
$y = a|x-h| + k$

fractions

a-----controls "slope" (wide or narrow)
negative (upside down)

Vertex--point at bottom or top of graph
V(h, k)
h shifts left and right
k shifts up or down

ex $y = |2x - 3|$

Illegal Move

$2\left|x - \frac{3}{2}\right|$

$V\left(\frac{3}{2}, 0\right)$

1. $V(0, -3)$

$y = |x| - 3$

Do #s 1-15
22-27